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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/723,344 | 11/26/2003 | Christian Alexander Lang | YOR920030480US1 | 8235 |

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EXAMINER

VAUGHN, GREGORY J

ART UNIT PAPER NUMBER

2178

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,344

Applicant(s)

LANG ET AL.

Examiner

Gregory J. Vaughn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12/12/2003</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Action Background

1. This action is responsive to the application filing, application filed on 11/26/2003.
2. Claims 1-18 are pending in the case, claims 1, 16, 17 and 18 are independent claims.
3. Acknowledgement is made to the applicant's submission of an Information Disclosure Statement, filed 12/12/2003.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "420" in Figure 4 has been used to designate both a relationship (between the "History" component and the "Mediator" component) and a "Military Unit" term. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

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- "420" in Figure 4, showing a relationship between "History" and "Mediator".

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:
 - The disclosure fails to disclose those reference signs listed in paragraph 5 above, which are shown in the drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."

8. Claims 1, 3, 8, 11, 12 and 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

9. **Regarding claims 1, 3, 8, 11, 12 and 18**, the claimed invention fails to produce a tangible result. The claimed invention as a whole must accomplish a practical application. That is, it must produce a *"useful, concrete and tangible result."* *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. (See MPEP 2106.) A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See *In re Warmerdam*, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also *Schrader*, 22 F.3d at 295, 30 USPQ2d at 1459.

Applicant's claimed invention is directed toward obtaining and determining (claims 1 and 18), storing (claim 3), maintaining a buffer (claim 8), more determining (claim 11) and restricting one of the determining elements (claim 12). The steps of these method claims are merely manipulating an abstract idea inside the computing device, which is not concrete or tangible. A tangible result would be, for example, the step of notifying the user (as recited in claim 2).

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

"The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention."

11. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "*annotation*" in claims 1-18 is used by the claim to mean "*classification*" while the accepted meaning is "*to make or furnish critical or explanatory notes or comments*". The term is indefinite because the specification does not clearly redefine the term. Nonetheless, the specification suggests that the term "*annotation*" is used to mean "*classification*" (see page 2, lines 3-5, Figures 2-4 and the related detailed description of those figures on pages 8-12), therefore in the novelty rejections that follow, the examiner assumes that the applicant considers the term "*annotation*" to mean "*classification*".

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

"A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language."

13. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Neal et al. US Patent 6,697,799, filed 10/24/2002, patented 2/24/2004 (hereinafter Neal).

14. Note: Applicant's use of the term "*annotation*" in claims 1-18 is clearly not being used within the ordinary meaning of the term, and the disclosure has been rejected for lack of clarity regarding the use of the term, as described above. The examiner assumes that the applicant considers the term "*annotation*" to mean "*classification*", as suggested by the specification (see page 2, lines 3-5, Figures 2-4 and the related detailed description of those figures on pages 8-12).

15. **Regarding independent claim 1**, Neal discloses determining a classification for a document. Neal recites: "*The present invention allows an item to automatically be classified using its attributes based on a classification schema and a knowledge base*" (column 2, lines 23-25). Neal discloses obtaining a user proposed classification to be associated with the document and automatically determining, in accordance with a knowledge base, whether the user-proposed annotation matches at least one allowed classification. Neal recites: "*the invention can include selecting a first attribute of the item, designating a first search strategy comprising the value of the first attribute applied to operate upon data records in a first database*" (column 2, lines 25-28). Neal discloses a user proposed classification in figure 8, at reference sign 812 (shown as "Add").
16. **Regarding dependent claim 2**, Neal discloses notifying the user that the user-proposed classification does not match at least one allowed classification when a match is not found in Figure 2 at reference sign 114 (shown as "*Display Results (Even If 0 Found)*").
17. **Regarding dependent claim 3**, Neal discloses storing a user proposed classification match when a match is found in Figure 3 at reference sign 51 (shown as "*Updated Classification Knowledge Database*").
18. **Regarding dependent claim 4**, Neal discloses notifying the user that the user proposed classification matches more than one allowed annotation,

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when more than one match is found in figure 8 at reference sign 820 (shown as a list of a plurality of matches).

19. **Regarding dependent claim 5**, Neal discloses automatically selecting a match when more than one match is found in Figure 6A, at reference sign 115 (shown as "*Can the Item Be Automatically Classified*").
20. **Regarding dependent claim 6**, Neal discloses notifying the user of match results after each attempted matching operation in Figure 6C at reference sign 155 (shown as "*Present the Categories and Confidence score to a User*").
21. **Regarding dependent claim 7**, Neal discloses a predetermined number of matching operations in Figure 4 at reference sign 59 (shown as "*Search Method Definition*"), and wherein the figure discloses an exemplary number of 3 matching operations.
22. **Regarding dependent claims 8-10**, Neal discloses a history buffer of matches (claim 8), using the history buffer to update a set of allowed classifications (claim 9) and using the history buffer to disambiguate matches (claim 10) in Figure 3 at reference sign 43 (shown as "*Classification Reference Database*"), 51 (shown as "*Updated Classification Knowledge Database*") and 47 (shown as "*Standards Database*").

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23. **Regarding dependent claim 11**, Neal discloses determining a closeness between the user-proposed classification and the allowed classification in Figure 4 at reference sign 75 (shown as "*Search Method Scoring Weights*").
24. **Regarding dependent claim 15**, Neal discloses annotating the document in Figure 1 at reference sign 17 (shown as "*Formatted Classified Content*").
25. **Regarding independent claims 16, 17 and 18**, the claims are directed toward an apparatus, article of manufacture and a method, respectively, for the method of claim 1, and are rejected using the same rationale.

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

"(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made."

27. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neal in view of Handschuh et al., S-CREAM – Semi-Automatic Creation of Metadata, copyright 2002 (hereinafter Handschuh).

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28. **Regarding dependent claims 12-14**, Neal discloses obtaining a user proposed classification, and automatically determining if the user-proposed annotation matches an allowed annotation from a knowledge base. Neal fails to disclose the knowledge base as a term graph. However Handschuh discloses the use of a term graph (claim 12), computing a distance between the user-proposed classification and an allowed classification (claim 13) and a stemming operation (claim 14) in the diagram at the top of page 4.

Therefore it would have been obvious, to one of ordinary skill at the time the invention was made, to combine the classification system of Neal with the term graph of Handschuh, in order to calculate the degree of separation between the user-proposed term and the allowed term, which would indicate to a system user the allowability of the proposed term.

Conclusion

29. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

| <u>Patent/Publication</u> | <u>Date</u> | <u>Inventor</u> |
|---------------------------|-------------|-------------------|
| • US-5,867,799 A | 02-1999 | Lang et al. |
| • US-6,697,799 B1 | 02-2004 | Neal et al. |
| • US-6,912,527 B2 | 06-2005 | Shimano et al. |
| • US-2003/0050994 A1 | 03-2003 | Pollack, Robert |
| • US-2003/0101181 A1 | 05-2003 | Al-Kofahi et al. |
| • US-2003/0187587 A1 | 10-2003 | Swindells et al. |
| • US-2003/0236845 A1 | 12-2003 | Pitsos, Errikos |
| • US-2004/0024758 A1 | 02-2004 | Iwasaki, Masajiro |
| • US-2004/0095936 A1 | 05-2004 | O'Neill et al. |

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- US-2004/0110193 A1 06-2004 Castle et al.
- US-2004/0138946 A1 07-2004 Stolze, Markus
- US-2006/0026127 A1 02-2006 Bodlaender, Maarten Peter

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Vaughn whose telephone number is (571) 272-4131. The examiner can normally be reached Monday to Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached at (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


STEPHEN HONG
SUPERVISORY PATENT EXAMINER

Gregory J. Vaughn
March 10, 2006